D. Discounting Plans

29. JH argues that many eligible households fail to use available discounts and that discounts merely offset price increases for other customers. He appears to point to the behavior of customers to explain the behavior of sellers (one can lead a horse to water...). As we noted in the discussion of PM's points above, the extent of the discounting programs is suggestive of competition, regardless of who adopts.

30. Most important, JH ignores the role played by price caps on AT&T. As we noted in our earlier *Affidavit*, it is likely that price caps hold rates below competitive rates for low-volume customers, but not for high-volume customers.[35] Low-volume customers pay the basic rates charged by AT&T, MCI, or Sprint, while high-volume customers often elect discount plans. On the one hand, if MCI and Sprint set their basic rates below those of AT&T, they would attract (and lose money on) AT&T's low-volume customers. On the other hand, if MCI and Sprint set their basic rates above those of AT&T, they would find it more difficult to compete for high-volume customers (because, *e.g.*, they would have to explain deeper discounts from a higher basic rate). Hence, MCI and Sprint are likely to match AT&T's basic rates and compete for high-volume customers using discount plans. JH offers no response to nor refutation of this argument.

E. Lockstep Pricing

31. JH argues that AT&T raises prices whenever the price caps permit and that MCI and Sprint follow with no change in costs. JH claims incorrectly that no affiant responded to this

[35] See Bernheim and Willig, note 4, *supra*.

argument. In fact, this claim ignores the adverse selection problem noted above.

32. In this case, the argument is as follows: Because basic rates are set below the cost of providing service to low-volume customers, AT&T has an incentive to raise basic rates whenever regulation permits (even if, in response to JH, the change in regulation is not associated with a change in AT&T's marginal costs). MCI and Sprint have an incentive to follow such a rate increase by AT&T so that they do not attract unprofitable business (the selection problem). When AT&T is compelled by regulation to reduce rates (still further below the cost of providing service to low-volume customers), MCI and Sprint have an incentive to follow so as not to generate controversy about differences among basic rates and discount plans. This pattern of behavior, which JH (and PM) insist on calling "lockstep pricing," is consistent with competition given the regulation-induced distortion in basic rates.

33. Remarkably, JH contends that no affiant addressed his discussion of the AT&T price increase that followed an accounting change. In fact, the discussion above (and in our earlier submission and in the earlier submission by Bernheim and Willig)[36] of artificially low rates for low-volume customers addressed, and effectively, explained, that precise increase.

F. Economies of Scope

34. JH asserts that RBOCs want to enter long-distance markets not to exploit market power, but to exploit economies of scope because of their networks in place (see, *e.g.*, his

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[36] See Hubbard and Lehr, note 1, *supra*, and Bernheim and Willig, note 4, *supra*. See also the analysis in Peter Pitsch, "A Brief History of Competition in the Long Distance Telecommunications Market," Mimeograph, September 1994, which we discussed in our earlier submission.

reference to the San Francisco and Los Angeles corridor). We note that these economies of scope do not exceed those of other competitors.

35. In our earlier submission, we mentioned several firms as potential long-distance competitors such as GM, American Express, and Sears. JH rejects the threat of competition from these firms on the basis that they do not presently have facilities-based networks which rival those of either the large long-distance carriers or the local-exchange carriers and the fact that they have not yet entered this market. Again, we argue that it is not necessary to enter markets for long-distance services with owned facilities in light of the ready availability of bulk capacity in the competitively priced lease market. Moreover, we note that the excess capacity controlled by the local-exchange carriers could also be used to support such entry. Indeed, the extent to which it is not may tell us more about competition in intraLATA markets than competition in interLATA markets. Given the viability of non-facilities-based entry, one must look elsewhere to explain why the RBOCs are in a unique position to improve long-distance markets. We cited the aforementioned firms to explain why the RBOCs are not unique either because of their expertise in network engineering or their marketing of telecommunication services (given that such marketing is similar, in many respects, to that of other retail and wholesale goods and services). The fact that these firms have not entered is entirely consistent with our claim that prices have not been anticompetitive. Based on our review, it is more likely that the RBOCs' strong desire to enter markets for long-distance services and claim of unique advantages over other potential competitors has everything to do with their continued market power over local-exchange services and intraLATA toll services.

III. CONCLUSIONS

36. The *Reply Affidavits* of Professors MacAvoy and Professor Hausman do not offer sufficient evidence for us to change our conclusion that the long-distance market is not characterized by collusive pricing. As we showed in our earlier submission to the Department of Justice:[37] (1) entry barriers are not significant in long-distance markets; (ii) price-cost margins have declined over the period we considered, even after accounting for reductions in access costs; and (iii) other indicators of performance support our overall finding of aggressive competition.

37. As we discussed in our earlier submission to the Department of Justice,[38] one cannot reach a similar conclusion about the current state of competition in local-exchange markets. When local-exchange markets achieve the same level of competition as that prevailing in long-distance markets, reexamining the need for continuing the restriction against local-exchange participation in interLATA toll markets may be warranted.

38. We conclude, however, exactly as we did in our earlier submission:

> That time is, however, not now. Ownership and control of a carrier by an RBOC may magnify rather than reduce exploitable market power. Since the MFJ was signed in 1982, there has been impressive growth in the diversity and in the quality of telecommunications services in both long-distance and local-exchange services. Both markets are experiencing an intensification of competition. However, the two markets are at very different stages of development. Given the rapid pace of change, it seems ill-advised to change a policy which has been successful thus far without first carefully considering the risks which might accompany such a change. There are ample reasons to suspect that the RBOCs may be able to exploit their existing power in local-exchange services unfairly in competition with long-distance carriers and/or with potential local-exchange competitors. Offsetting these risks, there are no significant costs associated

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[37] See Hubbard and Lehr, note 1, *supra*.

[38] See Hubbard and Lehr, note 1, *supra*, section V.

with postponing a decision until evidence on the state of competition in markets for local-exchange services is clearer.[39]

[39] See Hubbard and Lehr, note 1, *supra*, page .

* * *

We hereby swear, under penalty of perjury, that the foregoing is true and correct, to the best of our knowledge and belief.

Robert Glenn Hubbard

R. Glenn Hubbard

William H. Lehr

Subscribed and sworn to me on this 17th th day of August, 1995.

Eileen K. Potash

Notary Public

EILEEN K. POTASH
Notary Public, State of New York
No. 31-4843742
Qualified in Westchester County
Commission Expires Feb. 17, 19 96

My commission expires:

* * *

We hereby swear, under penalty of perjury, that the foregoing is true and correct, to the best of our knowledge and belief.

R. Glenn Hubbard

William H. Lehr

Subscribed and sworn to me on this 16 th day of August, 1995.

for William H Lehr Only

Channing L. Entwistle

Notary Public

Channing L. Entwistle
NOTARY PUBLIC

My commission expires: My commission exp. Dec. 8, 2000.

D

Cardinal

In the
UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA, Plaintiff, v. WESTERN ELECTRIC COMPANY, INC., and AMERICAN TELEPHONE AND TELEGRAPH COMPANY, Defendants.	)	Civ. No. 82-0192 (HHG)

REPLY AFFIDAVIT OF B.DOUGLAS BERNHEIM AND ROBERT D. WILLIG

B. Douglas Bernheim and Robert D. Willig, first being duly sworn, depose and state as follows:

1. B. Douglas Bernheim holds the position of Professor of Economics at Stanford University. His qualifications were set forth in the original affidavit filed with Robert D. Willig in December 1994 in this proceeding regarding the motion of four Regional Bell Operating Companies (RBOCs) to vacate the Modification of Final Judgment (MFJ).

2. Robert D. Willig holds the position of Professor of Economics and Public Affairs at Princeton University, where he teaches in the Economics Department and leads the economics program at the Woodrow Wilson School of Public and International Affairs. His qualifications were set forth in the original affidavit filed with B. Douglas Bernheim in this proceeding.

3. We have personally prepared the accompanying report, "A Further Analysis of the MFJ Line of Business Restrictions." A copy of this report is submitted with this affidavit as

Attachment 1. All of the statements contained therein are true and correct to the best of our knowledge and belief.

Further affiants sayeth not.

B. Douglas Bernheim

Subscribed and sworn before me on
this 27 th day of August, 1995

Notary Public

My Commission expires 9/25/95

OFFICIAL NOTARY SEAL
ROBERT E. WHITEAKER
Notary Public — California
SANTA CLARA COUNTY
My Comm. Expires SEP 25,1995

Robert D. Willig

Dated: August 22, 1995

I. INTRODUCTION

In a previous report, we provided a detailed analysis of the line of business restrictions that are imposed by the Modification of Final Judgment (MFJ).[1] We concluded that the MFJ continues to serve as a vital check on the RBOCs' ability to abuse the market power that they possess by virtue of their positions as dominant local exchange providers. We found in the RBOCs' submissions no valid or even coherent basis for overturning this conclusion. Indeed, the affidavits sponsored by the RBOCs were littered with countless inconsistencies and outright contradictions. Many of the RBOCs' witnesses demonstrated an extraordinarily poor understanding of the justifications for the line of business restrictions, and consequently many of their arguments were either irrelevant or inconsequential. In other cases, critical conclusions were based on misinterpretations of facts and/or data.

We have been asked by AT&T to revisit these issues in light of the RBOCs' most recent submission to the Department of Justice. In formulating the opinions expressed in this report, we have carefully studied the RBOCs' pleading, as well as the 15 expert affidavits that accompanied their submission. We have in addition reviewed other studies, documents, and data that were either provided to us by AT&T or obtained independently.

We find in the RBOCs' latest submissions no coherent reason to revise any of our previously stated opinions. Collectively, the reply affidavits are more notable for the numerous critical issues they fail to address, than for the arguments that they attempt to answer. The "answers" that they do provide are often non-sequiturs or mere restatements of their original positions, and in many cases are predicated on severe mischaracterizations of the positions expressed in our first report. The RBOC affiants persist in

[1] B. Douglas Bernheim and Robert D. Willig, "An Analysis of the MFJ Line of Business Restrictions," submitted to DOJ December 7, 1994.

misinterpreting the relevant data, and in attempting to draw unwarranted inferences from misguided empirical studies. Moreover, neither the RBOCs nor any of their affiants have attempted to reconcile any of the contradictory statements made by their witnesses in the first round of this proceeding.

The remainder of this report follows the general organization of our first report. Section II discusses the rationales for the MFJ's line of business restrictions. Section III examines the extent to which local competition mitigates the Decree's concerns. Section IV evaluates the efficacy of regulation. Section V examines experience with adjacent markets. Section VI delves into the competitiveness of interLATA services. Section VII considers arguments concerning the potential benefits from vacating the Decree.

II. THE RATIONALES FOR THE MFJ'S LINE OF BUSINESS RESTRICTIONS

A. LEVERAGING OF MARKET POWER

1. The simple logic of leveraging

> ***Conclusion #1:*** *Incentives to lever market power exist under most forms of binding price regulation, including rate of return regulation and the variants of price cap regulation that are used in telecommunications.*

In our original affidavit, we reviewed the conditions under which firms have incentives to lever market power from one industry to another, and concluded that such incentives do arise when market power is constrained by the forms of regulation that are prevalent in telecommunications. In the course of this discussion, we emphasized that the argument does not depend on the existence of a monopoly.

These principles are well-established, and generally regarded by specialists in the fields of industrial organization and regulation as uncontroversial. This, of course, has not deterred the RBOCs from attempting to blow smoke into the air, via the reply affidavit of Daniel Spulber.

In disputing the simple logic of leveraging, Spulber argues as follows (p. 30):

> "In the case without a bypass alternative... the RBOC is similar to a store that can sell a national brand and a generic 'house brand' of long distance service. By [Bernheim and Willig's] reasoning, no store would ever sell a national brand, since it can alter its markups to always give an advantage to the house brand."

This "analogy" appears to be chosen for maximum obfuscation of the central issues, and it distorts our position beyond all recognition.[2]

First, many retail markets are highly competitive. Leveraging of market power is plainly impossible when market power is non-existent. Spulber's assertion that our argument would apply to all retail situations is therefore obviously disingenuous.

Second, most retail markets aren't regulated. In our original affidavit, we were quite explicit about the role of regulation in producing incentives to leverage market power (pp. 11-13). Indeed, our discussion of leveraging *began* with the following passage (p. 10, emphasis added):

> "It is well-known that, under certain conditions, a firm with market power has no incentive to extend this power into adjacent markets. Consider, for example, a situation in which customers must use two complementary services in fixed proportions. Suppose hypothetically that one of these services is supplied by an <u>unregulated</u> monopolist, while the other is supplied competitively. Under these assumptions, the monopolist cannot extend its market power by excluding competitors."

Our discussion of this result paralleled the reasoning in Spulber's reply affidavit, and we made explicit reference to the considerations that he discussed on p. 32, including the alleged inability to "earn monopoly rents twice" and the alleged lack of incentive to distort the efficiency of downstream production. However, we explained carefully that these considerations are undermined by regulation.

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[2]Indeed, throughout his reply affidavit, Spulber seems determined to mischaracterize our clearly stated positions, perhaps because he finds it easier to dispute the mischaracterizations. For example, on p. 28, he states that "Bernheim and Willig thus assert that increasing rivals' costs is a *necessary* condition for market power leverage." Yet three lines above this passage, he quotes us as saying that, "[t]o leverage this market power successfully, an RBOC must be able to increase costs or degrade quality for long distance competition" (emphasis added). Similarly, on p. 27, he asserts that our analysis is flawed because it "assumes that the RBOC could somehow prevent consumers from purchasing long distance and local exchange service separately." On the contrary, nothing in our analysis requires bundling. Other examples of Spulber's mischaracterizations appear throughout the text of this report.

It is noteworthy that the RBOCs agree with our assessment of this issue. In another proceeding, Jerry Hausman has testified on behalf of the RBOCs that simple critiques of the leveraging argument, such as those set forth by Spulber, break down when binding regulation limits the exercise of market power.[3]

Spulber evidently disagrees with us, Hausman, and the RBOCs on this point. On p. 32 of his reply affidavit, he asserts that the leveraging argument is incorrect whether or not binding regulation restricts the exercise of market power. In this portion of his testimony, he does not bother to challenge any specific detail of the analysis contained in pages 11-13 of our original affidavit. Rather, he simply asserts, in a single incoherent sentence, that "when regulation places a ceiling on access charges, the RBOC can not (sic) expect to raise interexchange prices any further than the increase in the access charge." Since no further explanation is offered, we can only guess at his meaning. It is tautological that, if access prices are fixed by regulation, and if the RBOCs can do nothing to affect the regulated prices, then the RBOCs cannot discriminate against interexchange rivals by raising access prices.[4] However, even in this hypothetical situation, the RBOCs would still have powerful incentives to discriminate against their rivals by raising relative costs and/or degrading relative quality.[5]

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[3]Affidavit of Professor Jerry A. Hausman, January 17, 1994, p. 28, paragraph 45, submitted as Attachment 1 to the Reply of Southwestern Bell Corporation to AT&T's and McCaw's Oppositions to the Petitions to Deny and Reply to Comments, AT&T/McCaw, FCC File No. ENF-93-44 ("Hausman McCaw Affidavit").

[4]Notice, however, that access prices do not satisfy these conditions. As Woroch explains in his reply affidavit (p. 21), price caps apply to bundles of access services. Thus, price caps may leave the RBOCs free to raise prices strategically for selected access services, while reducing the prices of other access services. Although this may have little or no effect on total access revenues, it may allow the RBOC to extract greater rents in the interexchange market. In addition, Spulber has completely ignored the fact that reintegration into long distance would enhance each RBOC's ability to raise access prices generally. As discussed in section IV.B, price cap regulation does not completely sever the link between prices and costs. Currently, each RBOC may have exhausted its ability to increase access prices through cost shifting. However, the reintegration of the RBOCs into long distance would create important new opportunities to raise access prices still further by shifting costs between these two services. Since the boundary between long distance and access would be inherently arbitrary, cost shifting would become particularly difficult to police.

[5]Spulber also appears to suggest (p. 30) that the RBOCs would not discriminate against other IXCs because their customers would demand "variety" in long distance services. Yet he never documents the importance of variety, and indeed his position on issue is diametrically opposed to that of MacAvoy, who characterizes long distance as a homogeneous service. Even if variety was important to customers, the RBOCs would still have strong incentives to engage in discriminatory practices, in order to shift demand to their own long distance offerings.

Spulber also asserts (pp. 28-30) that efforts to raise relative costs or degrade relative quality would be precluded by regulation and/or competition in access markets. These assertions are superficial, and add nothing to the substance of the debates about regulation and competition. We discussed these subjects at length in sections III and IV of our original report, and revisit them in sections III and IV below. However, it is important to make one comment on the role of local competition in the current context. As emphasized in our original report and at the outset of this section, the issue here is not whether access or local exchange service are monopolies, but whether the RBOCs possess significant market power that is constrained by regulation. None of the RBOCs' affiants seriously dispute this point, or maintain that there is any substantive difference -- other than degree -- between a situation characterized by a true monopoly, and a situation characterized by significant market power. Spulber attempts to make light of the issue, arguing (p. 26) that "the mere possibility of some amount of 'market power' in the local exchange cannot justify barring the RBOCs from interexchange markets."[6] We are not, however, discussing a situation with a "mere possibility" of "some amount" of market power The reality is that regulation remains an important binding constraint on the RBOCs' pricing -- and this is all that matters in the context of leveraging. Spulber would evidently have us believe that the RBOCs would not raise the prices of access and local services significantly even if all regulatory restrictions were removed. This conclusion does not follow even if one accepts the premise that competitive activity has increased significantly in recent years.

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[6]The remainder of the cited paragraph is equally misguided. Spulber writes that "[m]ost companies have market power in the sense that they set prices and face price-responsive customer demand... No one would seriously suggest that regulation should then bar most companies from entering into new markets or producing multiple products. The mere existence of market power in the local exchange is not a sufficient justification for maintaining regulatory barriers to entry into long distance." The passage contains at least three fallacies. First, the RBOCs have substantial market power in local services, whereas Spulber's hypothetical companies may have insignificant market power. Second, the RBOCs face binding regulation, whereas Spulber's hypothetical companies may not be regulated. Third, technological links between local service and long distance service create opportunities for raising costs and degrading quality, whereas Spulber's hypothetical subsumes entry into unrelated markets and products.

It is also difficult to reconcile with the enormous amount of resources and effort devoted to the regulation of the RBOCs' rates and returns.

2. Leveraging of market power in the emerging telecommunications environment

> ***Conclusion #2**: The RBOCs' strategy of leveraging market power remains viable even in the presence of bypass alternatives, due to the existence of network externalities that impede migration to these alternatives. Thus, in the absence of competition in local network services, access competition is, by itself, insufficient to retard the risk of leveraging.*

This important conclusion follows from an appreciation of the distinctions between originating access and terminating access. As we explained (in considerable detail) in our original report (pp. 13-26), if an RBOC creates and favors its own interexchange facilities by degrading relative quality and/or raising relative costs for IXC competitors, then any particular subscriber may choose to bypass the RBOC altogether, establishing a direct link to an IXC's POP. This link may be used both for originating access on calls placed, and for terminating access on calls received. However, unless other customers have made similar arrangements, the original subscriber cannot bypass the RBOC's facilities on the terminating end for calls placed to other locations within the RBOC's territory. Thus, if the majority of customers initially subscribe only to the RBOC's access services, bypass vitiates the discriminatory practices of the RBOC only on origination, and not on termination. Rival IXCs remain at a competitive disadvantage, even if alternative access is equally or more efficient. As long as the RBOC respects the pricing cushion created on the terminating end by its discriminatory practices, it can extract supranormal profits from its interexchange operation without inducing significant numbers of subscribers to elect alternative access. Thus, the RBOC's market power is sustained by a "network externality." As discussed below, our original report also demonstrates that this argument remains valid even for calls that originate within the territory of one RBOC, and terminate within the territory of another.

While the RBOCs and their affiants continue to sound the theme of competitive access, they all but ignore the argument in the preceding paragraph. This is remarkable, since the argument thoroughly undermines all of the implications which they attempt to draw from their "evidence" of emerging competition. Some superficial criticisms of the argument do appear in the reply affidavits of Woroch, Spulber, and Hausman, but these are easily dismissed.

Woroch begins (p. 29) by characterizing our argument as a "price squeeze" on interexchange rivals. This characterization is simply incorrect, and Woroch's confusion is evident -- indeed, he immediately retracts the characterization in footnote 58.[7] He then asserts (p. 30) that "alternative access can be and often is provided at both ends of a call. The largest CAPs have already arranged to provide their customers with end-to-end service in cooperation with an intercity wholesaler." Here, Woroch has in mind private line services -- most commonly between two facilities of the same corporation -- that need never come in contact with a LEC's facilities. While such arrangements do exist, the impact of this observation is minimal. Dedicated point-to-point service is typically of use only to large corporations with significant activities at multiple locations; it is of little relevance to residential customers, small businesses, or single-location businesses (except in cases where a single-location business consistently generates a large volume of traffic to another firm at a distant location). Even large multiplant corporations usually generate a significant volume of calls that terminate at geographically diffuse locations (e.g. miscellaneous business contacts, residences, government offices, etc.). Woroch's "end-to-end" services cannot provide a mechanism for completing such calls without supplying a gateway into a LEC's network, and they are inevitably vulnerable to discriminatory practices at any such gateway.

Recognizing the weakness of his first argument, Woroch adds (p. 30) that, "[m]ore importantly, interexchange carriers are often the ones who purchase alternative access for their customers, in which

[7]The term "price squeeze" more accurately describes the strategy that might be undertaken by an unregulated firm as an *alternative* to leveraging of market power -- see our original report, pp. 10-11.

case they could easily substitute for high-priced originating and terminating access." Spulber sounds a similar theme (p. 31), when he characterizes our argument as depending "on the assertion that the customer making the call and the long distance carrier are captives of the access company that has been chosen by the terminating customer." Both Woroch and Spulber miss the obvious point that the options of the caller and the IXC are constrained by the pre-existing decisions of the party that is receiving the call. To put it slightly differently, they fail to distinguish between the choice of a terminating access arrangement, and the enablement of a terminating access arrangement. Through subscription decisions, each customer chooses either to enable or not to enable different terminating options for potential callers.[8] Callers and IXCs are constrained to choose among enabled options. While they may have an incentive to choose the most efficient *enabled* option, they cannot select an option that has not been enabled (e.g. if Dr. Spulber calls a relative via AT&T, AT&T will not offer to drop a fiber loop to the relative's house for the purposes of completing the call). The called party's incentives to make the enablement decision efficiently is further muted, since (with traditional telephony) the called party bears the cost of enabling an option, while the calling party typically pays for terminating access. These points were explained in our original report (p. 16), and yet neither Woroch nor Spulber offers any response.

In our original report, we also pointed out (p. 16) that the existence of many IXCs "significantly exacerbates the unique problems associated with terminating access." Specifically, to provide alternative access for all long distance calls on the originating end, the caller need only establish alternative access arrangements with a *single* IXC. Arrangements on the terminating end are considerably more complex. If someone places a long distance call via MCI to a business that has already established direct alternative access to MCI's POP, MCI may choose to circumvent the LEC's facilities for purposes of termination.

[8]This statement requires some clarification. Even if the called party is a residential customer who subscribes only to the LEC's services, an IXC may use a CAP to provide terminating access from the IXC's POP to the LEC's central office switch. Nevertheless, the subscription decisions of the called party still restrict the IXC to terminate the call through the LEC's network, and the IXC remains vulnerable to discrimination at the point of contact (here, the central office switch).

But what if the caller places this call via Sprint, rather than via MCI? Sprint may be compelled to terminate the call through the LEC's network, even though a more efficient alternative is available.[9] Neither Spulber nor Woroch respond to, or even acknowledge, this argument.

Further criticisms offered by Spulber are based on the mistaken notion that, in the world we describe, "[t]he customer of the RBOC passively waits to receive a call, never originating a call" (p. 30). He appears to assert that our argument collapses once one recognizes that all customers both make and receive calls. The premise of his argument is that a lower-priced access alternative would be adopted by all price sensitive customers for origination. He infers from this that alternative terminating arrangements would then be available for the same set of customers. According to Spulber (p. 31), "[t]he RBOCs would hold few if any captive customers for termination access since those customers would be served by competing carriers."

The premise of this argument is simply wrong, and the inference severely flawed. Nothing in our analysis depends on the separation of callers and receivers. With respect to the premise, Spulber has simply failed to grasp the import of network externalities. This point is most easily understood with reference to figure 1, which is closely related to panel B of figure 1 in our original report. Imagine that customer A places calls to customer B, and that customer B places calls customer A.[10] Imagine also that there is an equally efficient alternative access technology, but that, initially, neither customer subscribes to this alternative. If the RBOC imposes a 20 cent cost or quality penalty on all links between local network

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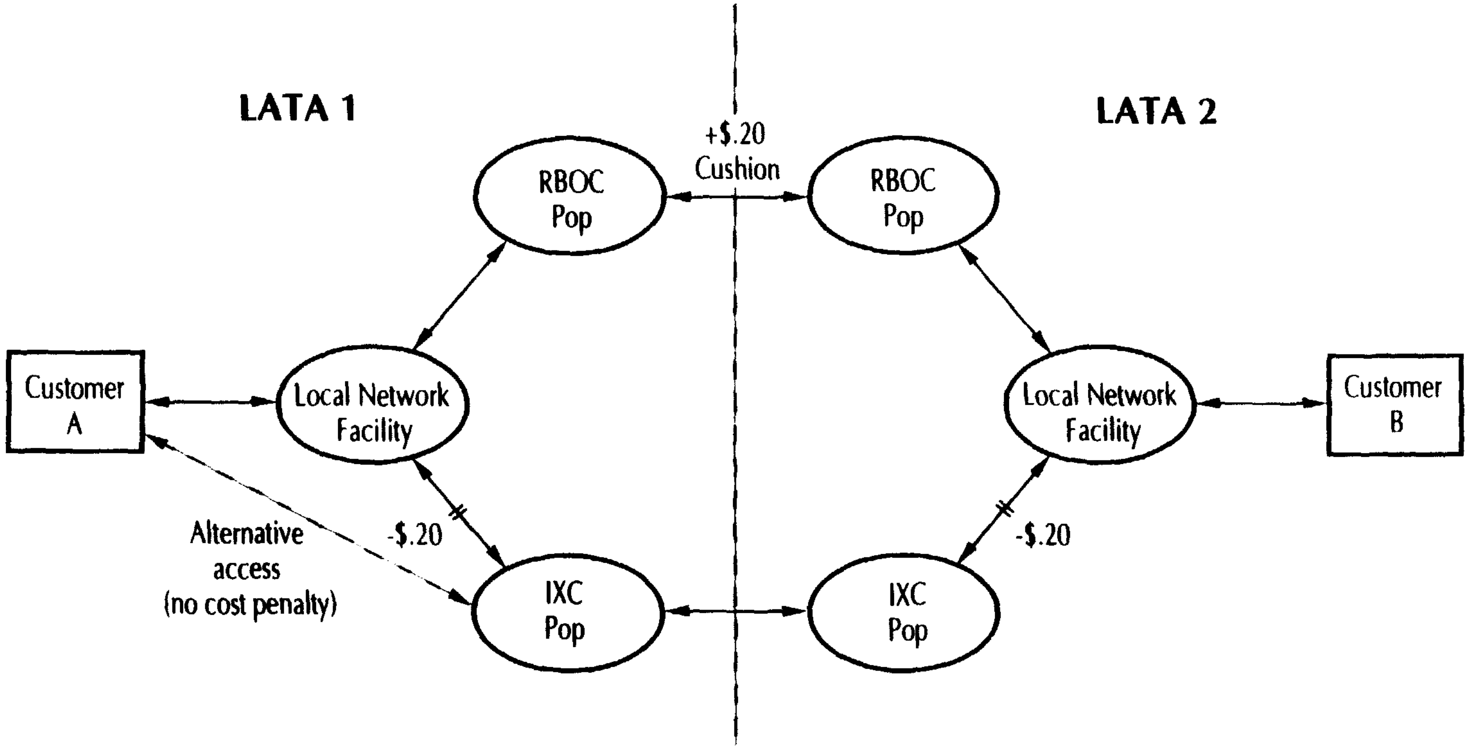
[9]In principle, there are two different ways to overcome this problem. First, customers could establish alternative access arrangements separately with all IXCs. This is far-fetched. Since called parties do not, in general, pay for terminating access, they have no incentive to establish alternative arrangements with more than one IXC (if any). Second, the IXCs could, in principle, coordinate terminating access services. Such cooperation would be extremely fragile. Each IXC would have a unilateral incentive to raise the costs of the others' long distance offerings by withholding cooperation. Also, IXCs might well be reluctant to share competitively sensitive information on access arrangements for important customers.

[10]Note that the arrows in this figure point in both directions, indicating that calls flow in both directions. Thus, Spulber's assertion (p. 30) that our analysis depends on the existence of customers who "passively [wait] to receive a call, never originating calls" is yet another clear mischaracterization of our analysis.

FIGURE 1


LATA 1
LATA 2
+$.20
Cushion
RBOC
Pop
RBOC
Pop
Customer
A
Local Network
Facility
Local Network
Facility
Customer
B
Alternative
access
(no cost penalty)
-$.20
-$.20
IXC
Pop
IXC
Pop

facilities and rival IXC POPs, it can raise the price of its interLATA services by up to 20 cents, *without inducing customer A -- or, symmetrically, customer B -- to switch unilaterally to alternative access for the purpose of call origination.* This is precisely because unilateral action circumvents the RBOC's discriminatory penalty only on the originating end. Thus, there is an equilibrium where the RBOC leverages market power from the local exchange into long distance, where neither customer has an incentive to establish alternative access for call origination, and where, therefore, alternative access is not available for the purposes of terminating any call.

In this simple example, it might be natural for A and B to coordinate their actions, and establish alternative access simultaneously. It is therefore important to remember that the schematic is only intended as a stylized representation of a situation where customer A calls a variety of parties, including customer B, and customer B calls a variety of parties, possibly including customer A. In this more realistic setting, no party would have a unilateral incentive to subscribe to alternative network services for the purposes of origination until other parties subscribe in sufficiently large numbers. This is the essence of a network externality.

Spulber seizes on our statement that the argument remains valid even when a bypass alternative is more efficient than the RBOC's offering, and asserts that this cannot be correct (p. 31). Evidently, Spulber believes that migration to the more efficient network is inevitable, even in the presence of network externalities. Yet there are numerous instances of inefficient practices and technologies that have flourished as a consequence of network externalities. Examples include the use of QWERTY keyboards and the durability of the English system of measurement (as opposed to the metric system) in the U.S. Some analysts also offer the "victories" of the VHS video standard (over Beta) and the IBM PC standard (over Apple) as additional examples.

Spulber's inference -- that the enablement of an alternative for originating access would make terminating access available for incoming calls -- is also seriously flawed. As we have already mentioned, the existence of many IXCs exacerbates the unique problems associated with terminating access. Spulber has simply ignored this issue.

Finally, on pages 33-36 of his reply affidavit, Spulber attempts to argue that no incentives to leverage market power would arise even in the settings that we depicted in our original report. This extended argument is, however, a simple rehash of the issues discussed and dismissed in section A.1, above. Although Spulber demonstrates the absence of incentives to leverage market power in one hypothetical setting, it is most certainly not the setting that we considered. Once again, he appears bound and determined to mischaracterize our analysis. As noted in section A.1, the argument suffers from two completely fatal flaws. First, it simply assumes away the regulatory provisions that create the incentives to lever market power. Second, it rules out the possibility that an RBOC would raise relative costs or degrade relative quality for rivals -- strategies that feature prominently in our analysis -- and considers only the possibility that the RBOC would discriminate against interexchange rivals through unregulated access prices. The criticism is therefore of no relevance whatsoever.

Hausman's reply affidavit mentions our theory of leveraging at two distinct points. First, on page 18, he asserts that we "are wrong on both the theory and the facts." However, a careful reading of his paragraph 27 reveals that his criticism has little if anything to do with the logical structure or factual basis for our argument. As is most readily apparent from footnote 44 (which purports to identify where we "go wrong as a matter of theory"), Hausman is simply making the standard argument that vertical integration may reduce prices, rather than increase them, due to the elimination of the phenomenon known as "double marginalization" (which refers to a situation where economic rents are earned at two layers of a vertical chain, rather than one). This is properly thought of not as a criticism of our theory, but as a possible offsetting factor.

Hausman evidently believes that double marginalization is present because prices currently exceed marginal costs both for local services and for long distance services. This misguided reasoning only serves to demonstrate Hausman's profound failure to comprehend the applicable theory.

As we demonstrated in our original report, the proper competitive standard for long distance is contestability, and not perfect competition. No RBOC affiant has challenged this view. Contestability leads to *average cost* pricing, rather than marginal cost pricing. Thus, prices above marginal costs do not indicate the presence of economic rents or double marginalization.

This observation undermines the "double marginalization" argument. The logic of Hausman's paragraph 27 (and footnote 44) is in error because it assumes that long distance prices will remain fixed when the RBOC varies access prices. This is incorrect. If long distance is contestable, then long distance prices will change with access prices to preserve average cost pricing in long distance. All true economic profits are then earned at the level of the RBOC, regardless of access prices. Thus, the unintegrated RBOC has precisely the same incentives to raise access prices as would an integrated monopolist, even though prices exceed marginal costs in long distance.[11]

Second, Hausman criticizes our arguments concerning terminating access by citing the example of competition in cellular service (p. 27, footnote 63). He notes that landline termination is also important for cellular calls, and asserts without factual support that no discrimination has taken place in the context of the cellular market. In our original report, we disputed both the relevance of cellular service as a precedent for long distance, as well as the factual basis for concluding that discrimination has been absent (section V.A and V.C). Hausman's offhanded assertions fail to come to grips with any of the substantive arguments contained in that report. We return to these issues in section V, below.

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[11]As the RBOC raises access prices, volume declines. As a result, established long distance prices fail to cover average costs. Long distance carriers must then increase prices, which chokes off access volume further, reducing RBOC rents. Thus, the RBOC is indirectly forced to take account of the effects of access price changes on quasi-rents in long distance.

Conclusion #3: Strong incentives to leverage market power continue to exist despite the existing fragmentation of the RBOCs.

In our original report, we argued that the fragmentation of the old Bell system into seven RBOCs does not substantially reduce incentives to leverage market power from local services into long distance. This follows for two reasons. First, a significant fraction of interLATA traffic originating within the territory of an RBOC also terminates within that RBOC's territory. Second, if all RBOCs were released from the Decree, their incentives to leverage market power would be mutually reinforcing. Specifically, as mentioned above, we demonstrated that our central argument concerning leveraging of market power is applicable in cases where calls originate within the territory of one RBOC, and terminate within the territory of another (provided that both RBOCs are free to provide long distance services). Aside from their general comments concerning leveraging, neither the RBOCs nor their affiants respond to this aspect of our analysis.

Conclusion #4: The RBOCs' incentives to leverage market power absent the Decree would be far greater than the non-RBOC LECs' existing incentives to leverage market power.

We explained in our first report that this conclusion follows from our analysis of leveraging for two reasons (p. 28). First, the fractions of calls originating and terminating within the territory of the same company is higher for the RBOCs than the non-RBOC LECs. Second, incentives to leverage market power are mutually reinforcing, and are therefore strengthened when more LECs are permitted to engage in the provision of long distance service. The RBOCs' affiants have commented on this conclusion in the context of GTE, and we will provide our responses in that context (section V.B).

Conclusion #5: Due to the particular characteristics of telecommunications services (especially those of terminating access), high concentration in local services is a significant competitive concern with respect to leveraging of market power into long distance services.

Our analysis demonstrates that, when local services are highly concentrated, network externalities serve to insulate the RBOCs' ability to leverage market power into long distance, even when cost-efficient bypass options are generally available. This conclusion follows from the observation that callers cannot